

Access DB# 105744

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: GREGG CANTELMO Examiner #: 75777 Date: 10/9/03  
 Art Unit: 1745 Phone Number 30 50635 Serial Number: 10/001954  
 Mail Box and Bldg/Room Location: C43 8E09 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: SEE ATTACHED

Inventors (please provide full names): SEE ATTACHED

Earliest Priority Filing Date: SEE ATTACHED

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

polymer/polymeric electrolyte/electrolytic

See formulas in claims

Formula 1 may be made by company called Daico

Crosslinking agent (Formula 2)

can also be

N,N (1,4-phenylene) bismaleimide  
 polyethylene glycol dimethacrylate  
 polyethylene glycol diacrylate

(nothing even close)

## STAFF USE ONLY

Searcher: ES

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: \_\_\_\_\_

Date Completed: 10-9-03

Searcher Prep & Review Time: 10

Clerical Prep Time: \_\_\_\_\_

Online Time: 115

## Type of Search

NA Sequence (#) \_\_\_\_\_

AA Sequence (#) \_\_\_\_\_

Structure (#) ✓ (2)

Bibliographic ✓ (and)

Litigation \_\_\_\_\_

Fulltext \_\_\_\_\_

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

## Vendors and cost where applicable

STN \$ 235.93

Dialog \_\_\_\_\_

Questel/Orbit \_\_\_\_\_

Dr. Link \_\_\_\_\_

Lexis/Nexis \_\_\_\_\_

Sequence Systems \_\_\_\_\_

WWW/Internet \_\_\_\_\_

Other (specify) \_\_\_\_\_

BEST AVAILABLE COPY

=> file reg

FILE 'REGISTRY' ENTERED AT 16:49:26 ON 09 OCT 2003  
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=> d his

FILE 'HCAPLUS' ENTERED AT 15:45:48 ON 09 OCT 2003

L1 2032 S NOH ?/AU  
L2 139185 S KIM ?/AU  
L3 856 S L1 AND L2  
L4 424092 S ELECTROLY?  
L5 12 S L3 AND L4  
SEL L5 1-12 RN

FILE 'REGISTRY' ENTERED AT 15:46:26 ON 09 OCT 2003

L6 43 S E1-E43  
L7 6 S L6 AND PMS/CI  
SEL L7 2,4 RN  
L8 2 S E44-E45  
E 2-PROPENOIC ACID, 1,2-ETHANEDIYL ESTER, HOMOPOLYMER/CN  
L9 1 S E3  
E POLYETHYLENE GLYCOL DIACRYLATE/CN  
L10 1 S E3  
E N,N-(1,4-PHENYLENE)-BISMALEIMIDE/CN

FILE 'LREGISTRY' ENTERED AT 15:55:27 ON 09 OCT 2003

L11 88 S ?MALEIMID?/CNS  
L12 1755 S ?PHENYLEN?/CNS  
L13 36 S L11 AND L12  
E "1H-PYRROLE-2,5-DIONE, 1,1'-(1,4-PHENYLENE) BIS-"/CN

FILE 'REGISTRY' ENTERED AT 15:57:14 ON 09 OCT 2003

E "1H-PYRROLE-2,5-DIONE, 1,1'-(1,4-PHENYLENE) BIS-"/CN  
L14 1 S E3  
L15 5 S L8 OR L9 OR L10 OR L14  
SEL L15 1-5 RN  
EDIT E1-E5 /BI /CRN  
L16 3184 S E1-E5  
E ALLYL ALCOHOL/CN  
L17 1 S E3  
L18 2554 S 107-18-6/CRN  
E ETHYLENE OXIDE/CN  
L19 1 S E3  
E ETHYLENE GLYCOL/CN  
L20 1 S E3  
E PROPYLENE OXIDE/CN  
L21 1 S E3  
E PROPYLENE GLYCOL/CN

L22 1 S E3  
L23 4 S L19 OR L20 OR L21 OR L22  
SEL L23 1-4 RN  
EDIT E1-E4 /BI /CRN  
L24 67427 S E1-E4  
E GLYCEROL/CN  
L25 1 S E3  
L26 13946 S 56-81-5/CRN  
L27 76 S L18 AND L24 AND L26  
L28 0 S L27 AND L16

FILE 'HCAPLUS' ENTERED AT 16:06:10 ON 09 OCT 2003

L29 61 S L27  
L30 2848 S L15  
L31 0 S L29 AND L30  
L32 9369 S L17  
L33 77931 S L19 OR L20 OR L21 OR L22  
L34 54971 S L25  
L35 0 S L30 AND L32 AND L33 AND L34  
L36 184 S L32 AND L33 AND L34  
L37 254431 S CROSSLINK? OR CROSS?(2A)LINK?  
L38 8 S L36 AND L37  
L39 18 S L29 AND L37

FILE 'REGISTRY' ENTERED AT 16:16:16 ON 09 OCT 2003

L40 31 S L27 AND 3/ELC.SUB  
L41 252473 S OC2/ESS OR OC2/ES  
L42 9 S L40 AND L41  
L43 4 S L40 AND NO RSD/FA  
L44 2 S L42 AND L43  
L45 29 S L40 AND 0<NRS  
L46 2 S L40 NOT L45

FILE 'HCAPLUS' ENTERED AT 16:22:48 ON 09 OCT 2003

L47 11 S L46 OR L42  
L48 29 S L40  
L49 0 S L47 AND L30  
L50 0 S L48 AND L30  
L51 2 S L47 AND L37  
L52 13 S L48 AND L37  
L53 195110 S BATTERY OR BATTERIES OR (ELECTROCHEM? OR ELECTROLY? OR  
L54 0 S L39 AND (L53 OR L4)  
L55 0 S L52 AND (L53 OR L4)  
L56 1 S L38 AND (L53 OR L4)  
L57 0 S L51 AND (L53 OR L4)  
L58 3 S DIASO

FILE 'REGISTRY' ENTERED AT 16:26:50 ON 09 OCT 2003

E DAISO  
L59 32 S E3

FILE 'HCAPLUS' ENTERED AT 16:27:40 ON 09 OCT 2003

L60 2232 S L59 OR DAISO  
L61 36 S L60 AND L30  
L62 321 S L60 AND L37  
L63 0 S L61 AND (L53 OR L4)  
L64 2 S L62 AND (L53 OR L4)  
L65 12 S L38 OR L51 OR L56 OR L64

FILE 'REGISTRY' ENTERED AT 16:37:37 ON 09 OCT 2003

E METHANOL/CN  
L66 1 S E3  
E ETHANOL/CN  
L67 1 S E3  
E N-PROPANOL/CN  
L68 1 S E3  
E ISOPROPANOL/CN  
L69 1 S E3  
E N-BUTANOL/CN  
L70 1 S E3  
E ISOBUTANOL/CN  
L71 1 S E3  
E SEC-BUTANOL/CN  
L72 1 S E3  
E TERT-BUTANOL/CN  
L73 1 S E3  
L74 8 S L66-L73  
SEL L74 1-8 RN  
EDIT E1-E8 /BI /CRN  
L75 24818 S E1-E8  
L76 3 S L75 AND L27

FILE 'HCAPLUS' ENTERED AT 16:44:34 ON 09 OCT 2003

L77 3 S L76  
L78 15 S L65 OR L77

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 16:50:39 ON 09 OCT 2003

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=> d l78 1-15 cbib abs hitstr hitind

L78 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

2000:774095 Document No. 133:316561 Carbonaceous material, its  
production process and electric double layer capacitor employing it.  
Murakami, Kazuyuki; Mogi, Yasuhiro; Tabayashi, Kazuteru; Shimoyama,  
Toru; Yamada, Kazuhiko; Shinozaki, Yasuo (Asahi Glass Co., Ltd.,  
Japan; Adchemco Corp.). Eur. Pat. Appl. EP 1049116 A1 20001102, 18  
pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT,

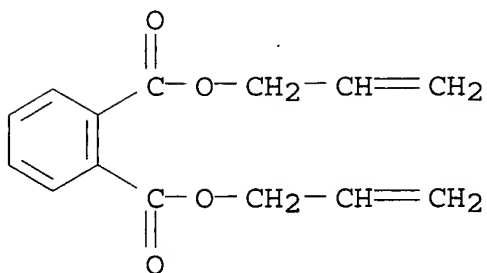
LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2000-109246 20000428. PRIORITY: JP 1999-123378 19990430; JP 1999-202972 19990716.

- AB A carbonaceous material which has a total pore vol. of from 0.3 to 2.0 cm<sup>3</sup>/g per unit mass, a vol. of micropores having diams. of from 10 to 20 .ANG. of from 10 to 60% based on the total pore vol., a vol. of mesopores having diams. of from 20 to 200 .ANG. of from 20 to 70% based on the total pore vol., a vol. of macropores having diams. exceeding 200 .ANG. of .ltoreq.20% based on the total pore vol., and a sp. surface area of from 1000 to 2500 m<sup>2</sup>/g. The material is prepd. by mixing a thermosetting resin with a solvent, curing, and carbonizing.
- IT **25053-15-0**, Diallyl phthalate polymer  
(carbonaceous material, solvent prodn. process and elec. double layer capacitor employing it)
- RN 25053-15-0 HCAPLUS
- CN 1,2-Benzenedicarboxylic acid, di-2-propenyl ester, homopolymer (9CI)  
(CA INDEX NAME)

CM 1

CRN 131-17-9

CMF C14 H14 O4



- IC ICM H01G009-155
- CC 76-10 (Electric Phenomena)  
Section cross-reference(s): 35, 38
- IT Binders  
Carbonization  
Controlled atmospheres  
**Crosslinking**  
**Electrolytic capacitors**  
Kneading  
Oxidizing agents  
Porous materials  
Size reduction  
Solvents  
(carbonaceous material, solvent prodn. process and elec. double layer capacitor employing it)
- IT 56-81-5, Glycerol, processes 57-55-6, Propyleneglycol, processes

71-36-3, Butanol, processes 75-05-8, Acetonitrile, processes  
 96-49-1, Ethylene carbonate 98-86-2, Acetophenone, processes  
 100-66-3, Anisole, processes 105-58-8, Diethyl carbonate  
 107-21-1, Ethylene glycol, processes 108-94-1, Cyclohexanone,  
 processes 109-89-7, Diethylamine, processes 110-59-8,  
 Valeronitrile 110-63-4, Tetramethylene glycol, processes  
 111-87-5, Octanol, processes 126-33-0, Sulfolane 126-33-0D,  
 Sulfolane, derivs. 141-43-5, Ethanolamine, processes 504-63-2,  
 Trimethyleneglycol 544-13-8, Glutaronitrile 591-78-6, Methyl  
 butyl ketone 616-38-6, Dimethyl carbonate 623-53-0, Ethyl methyl  
 carbonate 4437-85-8, Butylene carbonate 9003-08-1, Melamine  
 resin 9011-05-6, Urea resin 14797-73-0, Perchlorate  
 14874-70-5, Tetrafluoroborate 16919-18-9, Hexafluorophosphate  
**25053-15-0**, Diallyl phthalate polymer 37181-39-8,  
 Trifluoromethylsulfonate  
 (carbonaceous material, solvent prodn. process and elec. double  
 layer capacitor employing it)

L78 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN

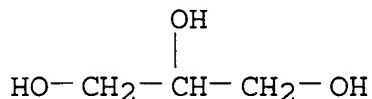
2000:685757 Document No. 133:346602 An optode with a covalently bound  
 fluorescent dye, 3-acryloylaminobenzanthrone, for an ethanol assay.  
 Yang, Xin; Liu, Wan-Hui; Shan, Wen-Wei; Shen, Guo-Li; Yu, Ru-Qin  
 (Institute for Chemometrics and Chemical Sensing Technology, College  
 of Chemistry and Chemical Engineering, Hunan University, Changsha,  
 410082, Peop. Rep. China). Analytical Sciences, 16(9), 935-938  
 (English) 2000. CODEN: ANSCEN. ISSN: 0910-6340. Publisher: Japan  
 Society for Analytical Chemistry.

AB The compd. 3-acryloylaminobenzanthrone (AABA) has been proposed as a  
 fluorescent carrier for prepg. an ethanol-sensitive fiber optode.  
 For immobilizing the fluorescent carrier on a glass surface,  
 copolymn. under UV irradiation was employed after the glass surface was  
 silanized by introducing vinyl groups. A new monomer,  
 1,2-cyclohexanediol diacrylate (CDDA), was proposed as a  
**crosslinking** agent. An optode sensing membrane contg.  
**cross-linked** AABA, formed after superficial  
 solidification under UV irradiation, was mounted in a flowing system  
 using a plastic-clad fused silica bifurcated fiber-optic bundle.  
 The optode system is well guaranteed to prevent the fluorescent  
 carrier from leaching, and can be utilized for an ethanol assay in a  
 flowing mode. The anal. performance characteristics were evaluated.  
 In an ethanol concn. range of 5 - 90% the fluorescence response  
 obeys the Stern-Volmer equation. A preliminary application of the  
 optode device for detg. ethanol in liqueur samples shows the  
 feasibility of using the proposed system in anal. practice.

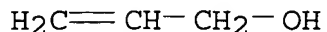
IT 56-81-5, Glycerol, analysis 107-18-6, Allyl  
 alcohol, analysis 107-21-1, 1,2-Ethanediol, analysis  
 (ethanol anal. with an optode covalently bound to the fluorescent  
 dye, 3-acryloylaminobenzanthrone)

RN 56-81-5 HCAPLUS

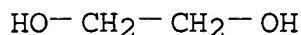
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



RN 107-18-6 HCAPLUS  
 CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



RN 107-21-1 HCAPLUS  
 CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

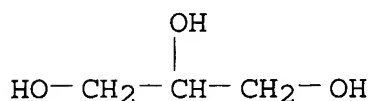


CC 9-1 (Biochemical Methods)  
 IT 56-81-5, Glycerol, analysis 64-17-5, Ethanol, analysis  
 67-56-1, Methanol, analysis 67-63-0, Isopropanol, analysis  
 71-36-3, 1-Butanol, analysis 75-65-0, tert-Butyl alcohol, analysis  
 78-83-1, Isobutanol, analysis 78-92-2, s-Butyl alcohol  
 107-18-6, Allyl alcohol, analysis 107-21-1,  
 1,2-Ethanediol, analysis 25917-35-5, Hexanol 28473-21-4, Nonanol  
 (ethanol anal. with an optode covalently bound to the fluorescent  
 dye, 3-acryloylaminobenzanthrone)

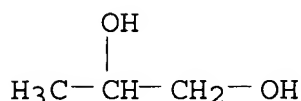
L78 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 1997:397694 Document No. 127:99877 Method of immersion sterilization  
 and organic cold chemical sterilant. Simmons, Paul L.; Immekus,  
 Robert L. (USA). U.S. US 5637307 A 19970610, 8 pp., Cont.-in-part  
 of U.S. 5,405,602. (English). CODEN: USXXAM. APPLICATION: US  
 1994-195365 19940214. PRIORITY: US 1989-304312 19890131; US  
 1991-642709 19910117; US 1992-901592 19920619.  
 AB A method of immersion sterilization of medical and dental  
 instruments, and an org. cold chem. sterilant capable of killing a  
 challenge of target microorganisms including bacterial spores, are  
 provided (no data). The method of immersion sterilization comprises  
 the steps of: (1) immersion of the instruments in a 1st org. soln.  
 comprising a reverse micellar environment to solubilize the protein  
 of the microorganisms, (2) immersion in an aq. soln. to unprotonate  
 the solubilized proteins, (3) exposing the bioburden on the  
 instruments to ultrasonic agitation to remove org. material from the  
 instruments, (4) immersion in a 2nd org. soln. to **crosslink**  
 the binding sites of the unprotonated proteins, thereby denaturing  
 the proteins to corrupt and penetrate the bacterial walls to kill  
 the endospores and other microorganisms. The org. cold chem.  
 sterilant comprises an azeotropic mixt. of a monohydric alc., a  
 polyhydric alc., a dialdehyde, a surface-active agent, and water in  
 preferred proportions of 70:(8-12):(0.5-1.0):(0.5-1.0):(14-18) by

wt. to denature the proteins, corrupt and penetrate the bacterial and conidial walls, and kill the endospores and other microorganisms. The 1st org. soln. has a similar compn. but without the dialdehyde.

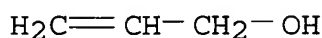
IT 56-81-5, Glycerol, biological studies 57-55-6,  
Propylene glycol, biological studies 107-18-6, Allyl  
alcohol, biological studies  
(method of immersion sterilization and org. cold chem. sterilant)  
RN 56-81-5 HCAPLUS  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



RN 57-55-6 HCAPLUS  
CN 1,2-Propanediol (8CI, 9CI) (CA INDEX NAME)



RN 107-18-6 HCAPLUS  
CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



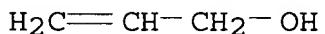
IC ICM A61L002-18  
ICS A61L002-02; A61K009-08  
NCL 424405000  
CC 63-8 (Pharmaceuticals)  
IT 56-81-5, Glycerol, biological studies 57-55-6,  
Propylene glycol, biological studies 64-17-5, Ethanol, biological  
studies 67-56-1, Methanol, biological studies 67-63-0,  
Isopropanol, biological studies 71-23-8, 1-Propanol, biological  
studies 71-36-3, 1-Butanol, biological studies 75-65-0,  
tert-Butanol, biological studies 107-18-6, Allyl alcohol,  
biological studies 107-22-2, Glyoxal 110-63-4, 1,4-Butanediol,  
biological studies 111-30-8, Glutaraldehyde 504-63-2,  
1,3-Propanediol 542-78-9, Malonaldehyde 584-03-2, 1,2-Butanediol  
638-37-9, Succinaldehyde 1072-21-5, Adipaldehyde 25322-68-3, PEG  
(method of immersion sterilization and org. cold chem. sterilant)

L78 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
1997:253757 Document No. 126:239182 Manufacture and uses of  
photocurable synthetic polymer compositions. Saito, Takao; Maeda,

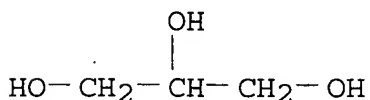


Kohei; Ozasa, Naoshi (Sanyo Chemical Industries, Ltd., Japan). Ger. Offen. DE 19632122 A1 19970213, 31 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1996-19632122 19960808. PRIORITY: JP 1995-225695 19950809; JP 1995-351791 19951225; JP 1996-129029 19960424; JP 1996-129028 19960424; JP 1996-131290 19960426.

- AB Rapidly cured title compns. comprise (A) compds. having a (branched) polymer structure with a polyether-, polyvinyl-, polyester-, polyurethane-, polyamide-, polycarbonate-, and novolak-type main chain contg. .gtoreq.5, preferably .gtoreq.10 2-propenyloxy groups, and having mol. wt. .gtoreq.1000, and (B) a cationic photopolymer initiator, e.g., a triarylsulfonium or diaryliodonium salt. **Crosslinked** title compns. and photoresists for printed circuit boards, printing inks, paper and metal coatings, optical fiber coatings, and adhesives contg. the compns. are also claimed. In a typical example, epichlorohydrin was polymd. with BF<sub>3</sub>.cntdot.Et<sub>2</sub>O, the polymer was etherified with polyethylene glycol monoallyl ether (prepn. given) in PhMe in the presence of KOH and Bu<sub>4</sub>NBr, the reaction mixt. heated to 170.degree. to produce a rearranged, 2-propenyloxy-terminated product which (80 parts) was combined with 20 parts MeCH:CHO(CH<sub>2</sub>CH<sub>2</sub>O)<sub>6</sub>H (prepn. given) and 5 parts UVR 6974 (photopolymer initiator). When coated (20 .mu.m) on a Cu plate and UV-irradiated, the above compn. required minimal energy input of 20 mJ/cm<sup>2</sup> to give a coating with pencil hardness H and good adhesion to the substrate.
- IT 107-18-6, Allyl alcohol, reactions  
(etherification of polyepichlorohydrin and allylic rearrangement; manuf. and uses of photocurable synthetic polymer compns.)
- RN 107-18-6 HCAPLUS
- CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



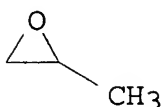
- IT 56-81-5, 1,2,3-Propanetriol, reactions  
(ethoxylation and etherification with allyl chloride; manuf. and uses of photocurable synthetic polymer compns.)
- RN 56-81-5 HCAPLUS
- CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



- IT 75-21-8, Oxirane, reactions  
(ethoxylation of glycerol; manuf. and uses of photocurable synthetic polymer compns.)
- RN 75-21-8 HCAPLUS
- CN Oxirane (9CI) (CA INDEX NAME)



IT 75-56-9, reactions  
 (propoxylation of glycerol; manuf. and uses of photocurable  
 synthetic polymer compns.)  
 RN 75-56-9 HCAPLUS  
 CN Oxirane, methyl- (9CI) (CA INDEX NAME)



IC ICM C08L029-10  
 ICS C08F116-20; C08F216-20; C08J003-28; C09D005-03; C09D011-10;  
 C09D129-10; C09J129-10; G03F007-027; B05D007-16; C07C043-16  
 ICA C08J003-28  
 ICI C08L023-26, C08L061-06, C08L067-07, C08L069-00, C08L071-02,  
 C08L075-16, C08L077-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38, 42, 74  
 IT 24969-06-0P, Polyepichlorohydrin  
 (crosslinked, neutralized, etherification with allyl  
 alc. and allylic rearrangement; manuf. and uses of photocurable  
 synthetic polymer compns.)  
 IT 107-18-6, Allyl alcohol, reactions  
 (etherification of polyepichlorohydrin and allylic rearrangement;  
 manuf. and uses of photocurable synthetic polymer compns.)  
 IT 56-81-5, 1,2,3-Propanetriol, reactions 126-58-9,  
 Dipentaerythritol  
 (ethoxylation and etherification with allyl chloride; manuf. and  
 uses of photocurable synthetic polymer compns.)  
 IT 75-21-8, Oxirane, reactions  
 (ethoxylation of glycerol; manuf. and uses of photocurable  
 synthetic polymer compns.)  
 IT 75-56-9, reactions  
 (propoxylation of glycerol; manuf. and uses of photocurable  
 synthetic polymer compns.)

L78 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 1995:767410 Document No. 123:164637 Extended use planar sensors.  
 Foos, Joseph S.; Edelman, Peter G.; Flaherty, James E.; Berger,  
 Joseph (Ciba Corning Diagnostics Corp., USA; CIBA Ltd.). Can. Pat.  
 Appl. CA 2113733 AA 19941010, 78 pp. (English). CODEN: CPXXEB.  
 APPLICATION: CA 1994-2113733 19940119. PRIORITY: US 1993-45847  
 19930409.

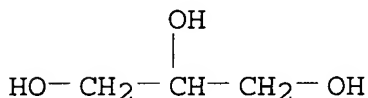
AB Disclosed is a planar, solid-state electrochem. oxygen sensor for,

e.g., blood anal., that has a substrate, conductive strips deposited on the substrate, and a dielec. layer insulating portions of the conductive strips except those which define a working electrode and at least one second electrode. The working electrode may be defined by an open printed region on the dielec., or by a needle-punched or laser-burned hole or opening in the dielec. which exposes a small region of one of the conductive strips. A solid **electrolyte** contacting the electrodes is covered by a semipermeable membrane which may comprise an acrylonitrile butadiene copolymer or an acrylate-based copolymer. A sample chamber is defined by the membrane, a cover member, and a gasket between, and has a vol. of from about 1 to about 2 mL. The gasket is formulated from the highly **crosslinked** polymn. product of epichlorohydrin. All sensor components are selected such that a sensor operable for at least 2 days under normal conditions is produced.

IT 56-81-5, Glycerol, analysis 57-55-6, Propylene glycol, analysis 107-18-6, Allyl alcohol, analysis 107-21-1, Ethylene glycol, analysis  
(extended use planar sensors for oxygen detn. in blood)

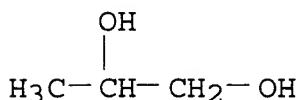
RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



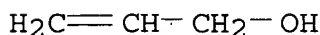
RN 57-55-6 HCAPLUS

CN 1,2-Propanediol (8CI, 9CI) (CA INDEX NAME)



RN 107-18-6 HCAPLUS

CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



RN 107-21-1 HCAPLUS

CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



IC ICM C08F220-08

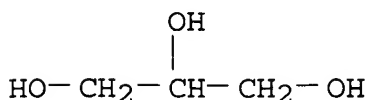
ICS C08F220-42; G01N027-409; G01N027-31; G01N027-40  
 CC 9-1 (Biochemical Methods)  
 Section cross-reference(s): 13, 76  
 IT 56-81-5, Glycerol, analysis 57-55-6, Propylene glycol, analysis 75-01-4, Vinyl chloride, analysis 78-63-7, 2,5-Bis(tert-butylperoxy)-2,5-dimethylhexane 79-06-1, Acrylamide, analysis 80-62-6, Methylmethacrylate 85-44-9D, Phthalic anhydride, polyester resins contg. 101-43-9, Cyclohexylmethacrylate 103-11-7, 2-Ethylhexylacrylate 104-54-1, Cinnamyl alcohol 106-89-8, Epichlorohydrin, analysis 106-92-3, Allyl glycidyl ether 107-13-1, Acrylonitrile, analysis 107-18-6, Allyl alcohol, analysis 107-21-1, Ethylene glycol, analysis 108-05-4, Vinyl acetate, analysis 108-31-6D, Maleic anhydride, polyester resins contg. 115-77-5, Pentaerythritol, analysis 142-90-5, Dodecylmethacrylate 504-63-2, 1,3-Propanediol 598-32-3, Methylvinyl carbinol 625-38-7, Vinylacetic acid 688-84-6, 2-Ethylhexylmethacrylate 923-26-2, 2-Hydroxypropylmethacrylate 1344-28-1, Alumina, analysis 3290-92-4, 2-Ethyl-2-(hydroxymethyl)-1,3-propanediol trimethacrylate 3648-20-2, Diundecyl phthalate 6117-91-5, Crotyl alcohol 7440-06-4, Platinum, analysis 7440-22-4, Silver, analysis 7440-57-5, Gold, analysis 7783-90-6, Silver chloride, analysis 9002-85-1, Polyvinylidene chloride 9002-86-2, Polyvinyl chloride 9003-01-4, Polyacrylic acid 9003-18-3, Acrylonitrile-butadiene copolymer 9010-76-8, Acrylonitrile-vinylidene chloride copolymer 24969-09-3, Allyl glycidyl ether-epichlorohydrin copolymer 25339-57-5, Butadiene  
 (extended use planar sensors for oxygen detn. in blood)

L78 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 1991:582576 Document No. 115:182576 Application of polymer supported oxidants to the selective oxidation of alcohols. Yang, Huirong; Li, Bina (Dep. Chem. Eng., Guangdong Inst. Technol., Guangzhou, Peop. Rep. China). Synthetic Communications, 21(14), 1521-6 (English) 1991. CODEN: SYNCAV. ISSN: 0039-7911. OTHER SOURCES: CASREACT 115:182576.

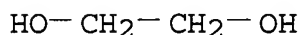
AB Allylic alcs., e.g., CH<sub>2</sub>:CHCH<sub>2</sub>OH, can be successfully oxidized into the corresponding .alpha.,.beta.-unsatd. aldehydes, e.g., CH<sub>2</sub>:CHCHO, by 2 new types of polymer-supported oxidizing reagents (chromate type tertiary anion polymer and perchromate quaternary anion polymer) which do not oxidize satd. alcs. under similar condition.

IT 56-81-5, 1,2,3-Propanetriol, reactions 107-21-1, 1,2-Ethenediol, reactions  
 (attempted oxidn. of, with polymer-supported chromate oxidant)

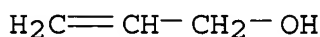
RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



RN 107-21-1 HCAPLUS  
 CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



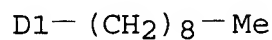
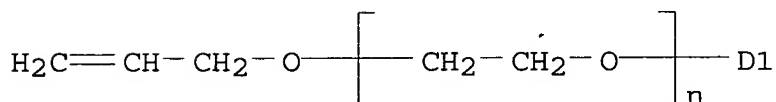
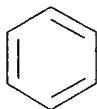
IT 107-18-6, Allyl alcohol, reactions  
 (oxidn. of, with polymer-supported chromate oxidant)  
 RN 107-18-6 HCAPLUS  
 CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



CC 23-14 (Aliphatic Compounds)  
 IT 56-81-5, 1,2,3-Propanetriol, reactions 71-23-8, Propyl alcohol, reactions 71-36-3, Butyl alcohol, reactions 107-21-1, 1,2-Ethanediol, reactions 111-70-6, 1-Heptanol 122-97-4, 3-Phenylpropyl alcohol 137-32-6 (attempted oxidn. of, with polymer-supported chromate oxidant)  
 IT 13530-68-2D, Chromic acid (H<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub>), dimethylaminomethyl **crosslinked** resin-supported salts 13907-47-6D, Chromate (Cr<sub>2</sub>O<sub>7</sub><sup>2-</sup>), trimethylammonio methylated **crosslinked** resin-supported (oxidant, for oxidn. of allylic alcs.)  
 IT 98-00-0, 2-Furanmethanol 100-51-6, Benzyl alcohol, reactions 104-54-1 106-24-1 106-25-2 107-18-6, Allyl alcohol, reactions 6117-91-5, 2-Buten-1-ol (oxidn. of, with polymer-supported chromate oxidant)

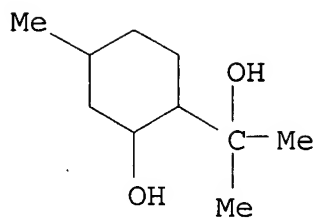
L78 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 1990:436411 Document No. 113:36411 Preparation of p-menthane-3,8-diol-containing copolymers as insecticides, pest repellents and plant growth regulators. Nishimura, Hiroyuki; Yasukochi, Toru; Honda, Susumu; Akimoto, Shinichi (Nippon Oils and Fats Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 01197512 A2 19890809 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-18572 19880130.  
 AB Polyalkylene glycol ethers of p-menthane-3,8-diol contg. B[O(AO)lR1]a[O(AO)mR2]b[O(AO)nH]c (B = residue of a compd. contg. 2-8 OH-groups; AO = C2-18 oxyalkylene; R1 = C2-5 alkenyl; R2 = C1-24 hydrocarbyl; a = 1-8; b = 0-7; c = 0-7; a + b + c = 2-8; l, m, n .gtoreq. 0) are prepd. CH<sub>2</sub>:CHCH<sub>2</sub>O(C<sub>3</sub>H<sub>6</sub>O)<sub>5</sub>(C<sub>2</sub>H<sub>4</sub>O)<sub>15</sub>Me 1022 g, maleic anhyd. 103 g, and Bz<sub>2</sub>O<sub>2</sub> 12 g 1L toluene were polymd. under N at 80.degree. for 7 h. After distg. off the excess of maleic acid and toluene, 980 g maleic anhyd. copolymer was yielded. The final product (av. mol. wt. 13300) was prepd. by refluxing the resulting copolymer 110 g with 10.3 g p-menthane-3,8-diol under N at 100.degree. for 4 h. The insecticidal, pest repellent, and plant growth regulator activities of I were demonstrated.

IT 127836-37-7P  
 (prepn. of, as insecticide and pest repellent and plant growth  
 regulator)  
 RN 127836-37-7 HCAPLUS  
 CN 2-Butenedioic acid (2Z)-, monoester with 2-hydroxy-.alpha.,.alpha.,4-  
 trimethylcyclohexanemethanol, monosodium salt, polymer with  
 methyloxirane polymer with oxirane methyl 2-methyl-2-propenyl ether,  
 .alpha.-(nonylphenyl)-.omega.-(2-propenyloxy)poly(oxy-1,2-  
 ethanediyl) and 2(or 3)-(2-propenyloxy)-1,?-propanediol (9CI) (CA  
 INDEX NAME)  
 CM 1  
 CRN 68913-59-7  
 CMF (C2 H4 O)n C18 H28 O  
 CCI IDS, PMS



CM 2  
 CRN 127836-36-6  
 CMF C14 H22 O5 . Na  
 CCI IDS

CM 3  
 CRN 42822-86-6  
 CMF C10 H20 O2

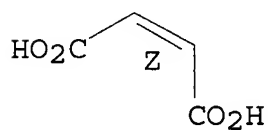


CM 4

CRN 110-16-7

CMF C4 H4 O4

Double bond geometry as shown.



CM 5

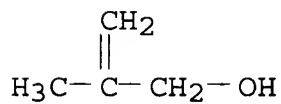
CRN 85205-51-2

CMF C4 H8 O . (C3 H6 O . C2 H4 O)x . C H4 O

CM 6

CRN 513-42-8

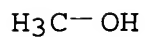
CMF C4 H8 O



CM 7

CRN 67-56-1

CMF C H4 O



CM 8

CRN 9003-11-6

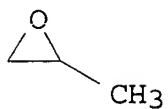
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 9

CRN 75-56-9

CMF C3 H6 O



CM 10

CRN 75-21-8

CMF C2 H4 O



CM 11

CRN 25136-53-2

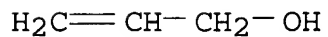
CMF C6 H12 O3

CCI IDS

CM 12

CRN 107-18-6

CMF C3 H6 O

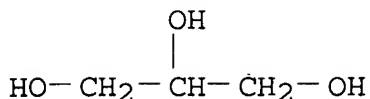


CM 13

CRN 56-81-5

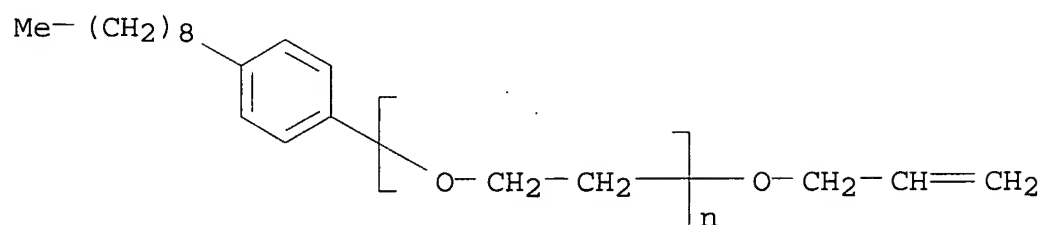
CMF C3 H8 O3





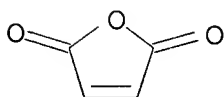
- IC ICM C08F222-20  
ICS C08F216-14; C08F222-20; C08F299-02  
ICA C07C069-60; C08F008-14  
CC 5-4 (Agrochemical Bioregulators)  
Section cross-reference(s): 37  
IT 127836-28-6P 127836-31-1P 127836-34-4P 127836-37-7P  
127860-27-9P 127965-02-0P 128019-98-7P  
(prepn. of, as insecticide and pest repellent and plant growth regulator)
- L78 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
1989:428539 Document No. 111:28539 Preparation of sustained-release preparation containing active hydroxyl or amino group-containing compounds condensed with maleic anhydride-polyalkylene glycol ether copolymers. Akimoto, Shinichi; Honda, Susumu; Yasukohchi, Tohru (Nippon Oils and Fats Co., Ltd., Japan). Eur. Pat. Appl. EP 282951 A2 19880921, 10 pp. DESIGNATED STATES: R: CH, DE, FR, GB, IT, LI, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1988-104022 19880314. PRIORITY: JP 1987-57926 19870314.
- AB A sustained-release prepn., for the gradual release of biol. active compds., comprises the reaction product obtained by reacting a copolymer of maleic anhydride and .gtoreq.1 polyalkylene glycol ether B[O(AO)lR1]a[O(AO)mR2]b[O(AO)nH]c [AO = C2-18 oxyalkylene groups which may be linked together in blocks or at random; B = residue of a compd. having 2-8 HO groups; R1 = C2-5 alkenyl; R2 = C1-24 hydrocarbyl; a, b, c, = pos. integers; l, m, n = .gtoreq.0; such that a + b + c = 2-8, l + m + n = 1-1000] with a hydroxyl or amine group-contg. active substance (e.g., hormones, perfumes, enzymes, growth regulators, pheromones, pesticides, vitamins, etc.). H2C:CHCH2O(CH2CH2CH2O)5(CH2CH2O)15Me 1022, maleic anhydride 103, and Bz2O2 12 g were dissolved in 1 L toluene, and stirred at 80.degree. for 7 h to give a copolymer (I) which had sapon. value 99.9. In 300 mL of pyridine 110 g I was dissolved, 10 g PhCH2CH2OH (II) added, and the mixt. refluxed for 4 h, producing a I-II ester, which, after sapon. in a methanolic NaOH soln. at reflux for 1 h, had 48.5% II retention, vs. 3.5% for a II-ethylene oxide-nonylphenol copolymer.
- IT 121161-98-6DP, esters or amides with hydroxyl or amine group-contg. biol. active compds.  
(prepn. of, for sustained release)
- RN 121161-98-6 HCAPLUS  
CN 2,5-Furandione, polymer with 1,3(or 2,3)-bis(2-propenyloxy)propanol, methyloxirane polymer with oxirane methyl 2-methyl-2-propenyl ether and .alpha.-(4-nonylphenyl)-.omega.-(2-propenyloxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CRN 64171-10-4  
 CMF (C2 H4 O)<sub>n</sub> C18 H28 O  
 CCI PMS



CM 2

CRN 108-31-6  
 CMF C4 H2 O3

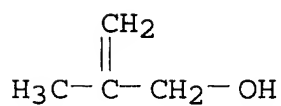


CM 3

CRN 85205-51-2  
 CMF C4 H8 O . (C3 H6 O . C2 H4 O)<sub>x</sub> . C H4 O

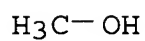
CM 4

CRN 513-42-8  
 CMF C4 H8 O



CM 5

CRN 67-56-1  
 CMF C H4 O



CM 6

CRN 9003-11-6

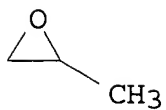
CMF (C3 H6 O . C2 H4 O) x

CCI PMS

CM 7

CRN 75-56-9

CMF C3 H6 O



CM 8

CRN 75-21-8

CMF C2 H4 O



CM 9

CRN 29595-46-8

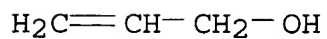
CMF C9 H16 O3

CCI IDS

CM 10

CRN 107-18-6

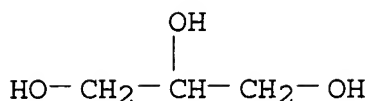
CMF C3 H6 O



CM 11

CRN 56-81-5

CMF C3 H8 O3



IC ICM A61K047-00  
ICS C08F222-06; C08F216-12  
CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 5, 35, 62  
IT 50-81-7DP, L-Ascorbic acid, esters with maleic anhydride-polyalkylene glycol alkenyl ether copolymer 60-12-8DP, .beta.-Phenethyl alcohol, esters with maleic anhydride-polyalkylene glycol ether copolymer 8059-24-3DP, Vitamin B6, esters with maleic anhydride-polyalkylene glycol alkenyl ether copolymer 9003-99-0DP, Peroxidase, reaction products with maleic anhydride-polyalkylene glycol ether copolymer 9013-19-8DP, Isomerase, reaction products with maleic anhydride-polyalkylene glycol alkenyl ether copolymer 9027-41-2DP, Hydrolase, reaction products with maleic anhydride-polyalkylene glycol alkenyl ether copolymer 9047-61-4DP, Transferase, reaction products with maleic anhydride-polyalkylene glycol alkenyl ether copolymer 9055-15-6DP, Oxidoreductase, reaction products with maleic anhydride-polyalkylene glycol alkenyl ether copolymer 11103-57-4DP, Vitamin A, esters with maleic anhydride-polyalkylene glycol alkenyl ether copolymer 121136-19-4DP, esters or amides with hydroxyl or amine group-contg. biol. active compds. 121136-29-6DP, esters or amides with hydroxyl or amine group-contg. biol. active compds. 121136-31-0DP, esters or amides with hydroxyl or amine group-contg. biol. active compds. 121136-34-3DP, esters or amides with hydroxyl or amine group-contg. biol. active compds. 121136-35-4DP, esters or amides with hydroxyl or amine group-contg. biol. active compds. 121136-37-6DP, esters or amides with hydroxyl or amine group-contg. biol. active compds. 121150-59-2DP, esters or amides with hydroxyl or amine group-contg. biol. active compds. 121161-98-6DP, esters or amides with hydroxyl or amine group-contg. biol. active compds. 121266-65-7DP, esters or amides with hydroxyl or amine group-contg. biol. active compds.  
(prepn. of, for sustained release)

L78 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
1987:555504 Document No. 107:155504 Manufacture of highly water-absorbable resins. Endo, Seiji; Chiba, Yoshitane; Matsuzaki, Taketaka (Toho Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62104805 A2 19870515 Showa, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-242670 19851031.  
AB Title resins having good water absorption and water insoly. are prepd. from hydroxypolyoxyethylene monoallyl ethers and/or hydroxypolyoxyethylene polyoxypropylene monoallyl ethers, H2O-sol. unsatd. monomers (mainly vinyl carboxylic acids or their derivs.) and **crosslinking** agents. Thus, hydroxypolyoxyethylene

glycerol monoallyl ether (I) having mol. wt. 3000 was mixed with acrylic acid and K<sub>2</sub>S<sub>2</sub>O<sub>8</sub> at 80.degree., treated with NaOH soln., cooled, treated with Denacol EX 810 (epoxy resin) at 80.degree. to form a product showing H<sub>2</sub>O absorption (from physiol. 0.9% NaCl in H<sub>2</sub>O for 0.5 h, and from pure H<sub>2</sub>O) 50 and 160 g/g, resp., and water insoly. 95.2%; vs. 30 and 112 g/g, resp., and 75.2% using a product prepd. from I having mol. wt. 30,000.

IT 110692-35-8P 110749-38-7P

(manuf. of, with good water absorption and water insoly.)

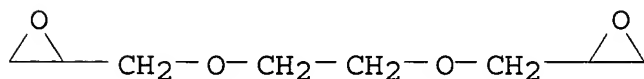
RN 110692-35-8 HCAPLUS

CN 2-Propenoic acid, polymer with 2,2'-[1,2-ethanediylbis(oxymethylene)]bis[oxirane] and methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1) 2-propenyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 2224-15-9

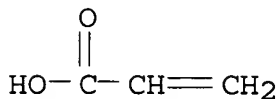
CMF C8 H14 O4



CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

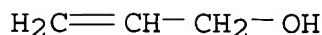
CRN 74191-36-9

CMF C3 H8 O3 . 3 (C3 H6 O . C2 H4 O)x . x C3 H6 O

CM 4

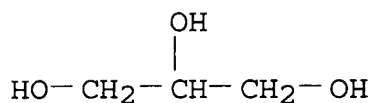
CRN 107-18-6

CMF C3 H6 O



CM 5

CRN 56-81-5  
 CMF C3 H8 O3

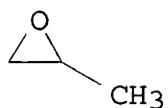


CM 6

CRN 9003-11-6  
 CMF (C3 H6 O . C2 H4 O)x  
 CCI PMS

CM 7

CRN 75-56-9  
 CMF C3 H6 O



CM 8

CRN 75-21-8  
 CMF C2 H4 O

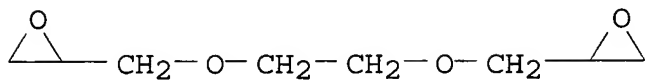


RN 110749-38-7 HCAPLUS  
 CN 2-Propenoic acid, polymer with 1,3(or 2,3)-  
 bis(oxiranylmethyl)propanol, 2,2'-[1,2-ethanediylbis(oxymethylene)]b  
 is[oxirane] and methyloxirane polymer with oxirane ether with  
 1,2,3-propanetriol (3:1) 2-propenyl ether (9CI) (CA INDEX NAME)

CM 1

CRN 2224-15-9

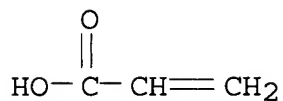
CMF C8 H14 O4



CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

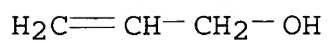
CRN 74191-36-9

CMF C3 H8 O3 . 3 (C3 H6 O . C2 H4 O)x . x C3 H6 O

CM 4

CRN 107-18-6

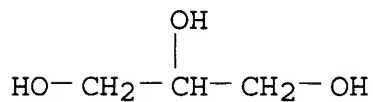
CMF C3 H6 O



CM 5

CRN 56-81-5

CMF C3 H8 O3



CM 6

CRN 9003-11-6

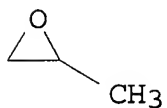
CMF (C3 H6 O . C2 H4 O)x

CCI PMS

CM 7

CRN 75-56-9

CMF C3 H6 O



CM 8

CRN 75-21-8

CMF C2 H4 O



CM 9

CRN 27043-36-3

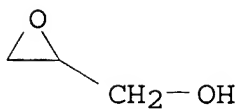
CMF C9 H16 O5

CCI IDS

CM 10

CRN 556-52-5

CMF C3 H6 O2

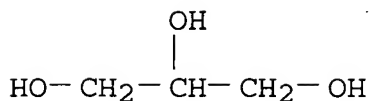


CM 11

CRN 56-81-5

CMF C3 H8 O3





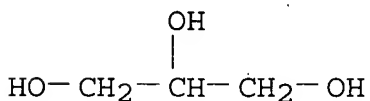
IC ICM C08F008-00  
ICA B01J020-26; C08F216-20; C08F220-02; C08G059-40  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 38  
ST epoxy resin **crosslinked** acrylic polyoxyalkylene; water  
absorbent acrylic polyester polyoxyethylene; aq absorption degree  
polyoxyalkylene **crosslinking**  
IT 110692-35-8P 110726-24-4P 110749-36-5P 110749-37-6P  
110749-38-7P  
(manuf. of, with good water absorption and water insoly.)

L78 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
1982:545584 Document No. 97:145584 Interaction of poly(ethylene oxide)  
with solvents: 1. Preparation and swelling of a  
**crosslinked** poly(ethylene oxide) hydrogel. Graham, N. B.;  
Nwachuku, N. E.; Walsh, D. J. (Dep. Pure Appl. Chem., Univ.  
Strathclyde, Glasgow, G1 1XL, UK). Polymer, 23(9), 1345-9 (English)  
1982. CODEN: POLMAG. ISSN: 0032-3861.

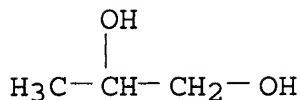
AB **Crosslinked** polymer gels contg. over >90% poly(ethylene  
oxide) were prepd. and their swelling in a large no. of solvents  
studied. The results confirm previous observations that the  
interaction of poly(ethylene oxide) with water was quite different  
from the interaction with most other solvents. HCONH2 [75-12-7]  
also appeared to be anomalous. The **crosslinked** polymer,  
swollen with water, showed dramatic syneresis between 0.degree. and  
100.degree. but at 100.degree. still retained approx. 3 mols. of  
water for each ether O.

IT 56-81-5, properties 57-55-6, properties  
107-18-6, properties 107-21-1, properties  
(swelling of **crosslinked** poly(ethylene oxide) in)

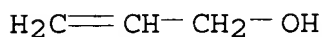
RN 56-81-5 HCAPLUS  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



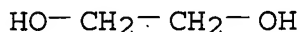
RN 57-55-6 HCAPLUS  
CN 1,2-Propanediol (8CI, 9CI) (CA INDEX NAME)



RN 107-18-6 HCAPLUS  
 CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



RN 107-21-1 HCAPLUS  
 CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



CC 36-7 (Physical Properties of Synthetic High Polymers)  
 ST polyoxyethylene **crosslinked** swelling solvent; water  
 swelling **crosslinked** polyoxyethylene; formamide swelling  
**crosslinked** polyoxyethylene  
 IT Solvents  
 (org., **crosslinked** poly(ethylene oxide) swelling in)  
 IT Alcohols, properties  
 (swelling of **crosslinked** poly(ethylene oxide) in)  
 IT 56-23-5, properties 56-81-5, properties 57-55-6,  
 properties 64-17-5, properties 64-19-7, properties 67-56-1,  
 properties 67-63-0, properties 67-66-3, properties 71-36-3,  
 properties 71-43-2, properties 75-07-0, properties 75-12-7,  
 properties 78-83-1, properties 78-93-3, properties 80-62-6  
 84-66-2 84-74-2 93-58-3 93-89-0 95-50-1 95-92-1 96-22-0  
 96-48-0 98-95-3, properties 99-87-6 100-41-4, properties  
 100-52-7, properties 105-53-3 107-13-1, properties  
 107-18-6, properties 107-21-1, properties  
 108-10-1 108-88-3, properties 108-90-7, properties 108-93-0,  
 properties 109-94-4 110-54-3, properties 111-65-9, properties  
 119-36-8 119-64-2 120-92-3 123-54-6, properties 123-72-8  
 141-32-2 141-78-6, properties 7732-18-5, properties  
 (swelling of **crosslinked** poly(ethylene oxide) in)

L78 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 1977:570308 Document No. 87:170308 Polyhydric-substituted polyethylene  
 backbone emulsion breaker. Moreland, Billy R.; Lenderman, Gary L.  
 (Nalco Chemical Co., USA). Can. CA 1010740 19770524, 34 pp.  
 (English). CODEN: CAXXA4. APPLICATION: CA 1974-189721 19740108.  
 AB A water-in-oil emulsion breaker compn. is disclosed that has a  
 polyethylene backbone with attached polyhydric groups that render it  
 more hydrophobic or hydrophilic. The polyhydric-substituted  
 polyethylene backbone emulsion breaker compn. is formed by reacting

a polyalkylene glycol with an unsatd. compd. from the group consisting of maleic anhydride, glycidyl acrylate, allyl glycidyl ether, or an unsatd. acid or ester in the presence of an inorg. acidic or basic catalyst, and reacting the product formed with an O- or N-contg. vinyl compd. in the presence of a catalyst, and optionally, with addnl. polyalkylene glycol. Thus, polyethylene-polypropylene glycol (I) (mol. wt. .apprx.3000) 37, and glycidyl acrylate 1.85 parts were heated in an arom. hydrocarbon solvent at 100.degree. for 5 h. The product was cooled to 50.degree., Me acrylate 5.6, 85% H3PO4 0.4, and AIBN 0.4 parts were added, and the mixt. was heated at 110.degree. for 3 h. The product 100 and I 40 parts were heated at 180.degree. for 1h, cooled, and 40 parts arom. hydrocarbon solvent was added. The product is particularly suitable for crude oil emulsions. The amt. required for emulsion breaking is 1 part/2000-100,000 parts emulsion.

IT 64849-85-0

(demulsifiers, for petroleum emulsions)

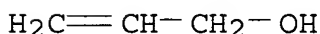
RN 64849-85-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with methyloxirane polymer with oxirane (2E)-2-butenedioate butyl ether, methyloxirane polymer with oxirane ether with 1,2,3-propanetriol (3:1), and 2-propen-1-ol (9CI)  
(CA INDEX NAME)

CM 1

CRN 107-18-6

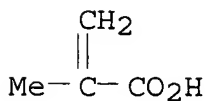
CMF C3 H6 O



CM 2

CRN 79-41-4

CMF C4 H6 O2



CM 3

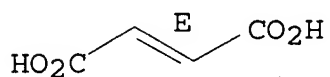
CRN 64718-92-9

CMF C4 H10 O . x C4 H4 O4 . (C3 H6 O . C2 H4 O)x

CM 4

CRN 110-17-8  
CMF C4 H4 O4

Double bond geometry as shown.



CM 5

CRN 71-36-3  
CMF C4 H10 O

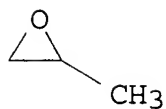


CM 6

CRN 9003-11-6  
CMF (C3 H6 O . C2 H4 O) x  
CCI PMS

CM 7

CRN 75-56-9  
CMF C3 H6 O



CM 8

CRN 75-21-8  
CMF C2 H4 O

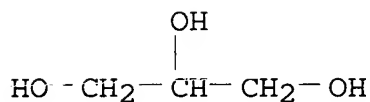


CM 9

CRN 9082-00-2  
 CMF C3 H8 O3 . 3 (C3 H6 O . C2 H4 O)x

CM 10

CRN 56-81-5  
 CMF C3 H8 O3

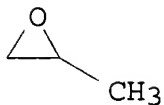


CM 11

CRN 9003-11-6  
 CMF (C3 H6 O . C2 H4 O)x  
 CCI PMS

CM 12

CRN 75-56-9  
 CMF C3 H6 O



CM 13

CRN 75-21-8  
 CMF C2 H4 O

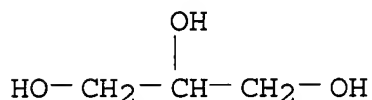


CC 51-3 (Fossil Fuels, Derivatives, and Related Products)  
 Section cross-reference(s): 35

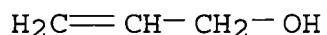
IT	64650-61-9	64650-62-0	64650-63-1	64650-64-2	64650-65-3
	64650-66-4	64650-67-5	64650-68-6	64650-69-7	64650-70-0
	64650-71-1	64650-72-2	64650-73-3	64650-74-4	64650-75-5
	64650-76-6	64650-77-7	64674-24-4	64674-25-5	64773-39-3
	64777-50-0	64777-51-1	64808-86-2	64816-26-8	64816-27-9

64816-28-0    64816-29-1    64816-30-4    64816-31-5    64816-32-6  
 64816-33-7    64816-34-8    64816-35-9    64816-36-0    64816-37-1  
 64816-38-2    64849-81-6    64849-82-7    64849-83-8    64849-84-9  
**64849-85-0**    64849-86-1    64881-97-6    64990-22-3  
 (demulsifiers, for petroleum emulsions)

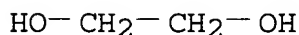
- L78 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 1976:106457 Document No. 84:106457 Studies on the synthetic fiber of hydrophilic-hydrophobic copolymer. Part 6. The physical properties of **cross-linked** ethylene-vinylalcohol-acrylic acid terpolymer. Matsumoto, Tsunetaka; Nakamae, Katsuhiko; Ochiumi, Tsukasa; Musa, Giichi; Shioyama, Tsutomu (Fac. Eng., Kobe Univ., Kobe, Japan). Sen'i Gakkaishi, 31(12), T537-T544 (Japanese) 1975. CODEN: SENGAS. ISSN: 0037-9875.
- AB Sapond. acrylic acid-ethylene-vinyl acetate copolymer (I) [26713-18-8] was **crosslinked** by immersing in a diamine soln. and heating, and the degree of **crosslinking** and the properties of the **crosslinked** polymer depended on the degree of swelling in the diamine solns. and heating temp. and time. The glass-transition temp. and the flow-region temp. (dynamic viscoelasticity) of the **crosslinked** polymer increased with increasing degree of **crosslinking**. The tensile strength of the polymer films decreased after **crosslinking** due to destruction of crystallinity and mol. orientation during swelling in diamine solns. Some of the efficiently **crosslinked** polymer films had shrinkages in boiling H2O and in air at 150.degree. <10%.
- IT 56-81-5, uses and miscellaneous 107-18-6, uses and miscellaneous 107-21-1, uses and miscellaneous (swelling agents, in **crosslinking** of acrylic acid-ethylene-vinyl alc. polymers by ethylenediamine)
- RN 56-81-5 HCAPLUS  
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



RN 107-18-6 HCAPLUS  
 CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



RN 107-21-1 HCAPLUS  
 CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



- CC 36-6 (Plastics Manufacture and Processing)
- ST acrylic acid copolymer **crosslinking**; diamine  
**crosslinking** acrylic copolymer; ethylene acrylic acid  
 copolymer; sapond vinyl acetate copolymer
- IT Swelling agents  
 (alcs., in **crosslinking** of acrylic acid-ethylene-vinyl  
 alc. polymers with ethylenediamine)
- IT Viscoelasticity  
 (dynamic, of **crosslinked** acrylic acid-ethylene-vinyl  
 alc. polymers)
- IT **Crosslinking** agents  
 (ethylenediamine, for acrylic acid-ethylene-vinyl alc. polymers)
- IT 2-Propenoic acid, polymer with ethene and ethenyl acetate, sapond.  
 Acetic acid ethenyl ester, polymer with ethene and 2-propenoic acid,  
 sapond.  
 Ethene, polymer with ethenyl acetate and 2-propenoic acid, sapond.  
 (**crosslinking** of, by ethylenediamine)
- IT 107-15-3, uses and miscellaneous  
 (**crosslinking** agents, for acrylic acid-ethylene-vinyl  
 alc. polymers)
- IT 56-81-5, uses and miscellaneous 64-17-5, uses and  
 miscellaneous 67-56-1, uses and miscellaneous 67-63-0, uses and  
 miscellaneous 71-23-8, uses and miscellaneous 71-36-3, uses and  
 miscellaneous 75-12-7 98-00-0 100-51-6 107-18-6,  
 uses and miscellaneous 107-21-1, uses and miscellaneous  
 111-87-5 7732-18-5  
 (swelling agents, in **crosslinking** of acrylic  
 acid-ethylene-vinyl alc. polymers by ethylenediamine)
- L78 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN
- 1973:17782 Document No. 78:17782 Light-hardenable polyesters.  
 Rudolph, Hans; Traenckner, Hans Joachim; Fuhr, Karl; Deninger,  
 Wolfgang; Patheiger, Manfred (Farbenfabriken Bayer A.-G.). Ger.  
 Offen. DE 2113998 19721012, 11 pp. (German). CODEN: GWXXBX.  
 APPLICATION: DE 1971-2113998 19710323.
- AB The photopolymerizable unsatd. (.beta.,.gamma.-unsatd. ether  
 residues) polyesters, e.g. fumaric acid-1,2-propylene  
 glycol-diethylene glycol-trimethylolpropane diallyl ether-diethylene  
 glycol monobutyl ether copolymer (I) [37685-87-3], in styrene were  
 quickly hardened in the presence of benzoin ethers, e.g. benzoin  
 isopropyl ether (II) [6652-28-4] to give hard and scratch-resistant  
 coatings. Thus, 2320 parts fumaric acid and 451 parts 1,2-propylene  
 glycol under N were slowly heated to 150.deg., diethylene glycol  
 1441, trimethylolpropane diallyl ether 941, diethylene glycol  
 monobutyl ether 428, and hydroquinone 0.34 part added, the mixt. was  
 heated at 10.deg./hr to 180.deg., and condensed to give I of acid  
 no. 30 and viscosity 19.5 sec (DIN 4 cup). I (cooled to 140.deg.)  
 was dild. to 69% with styrene and 0.31 part hydroquinone and 2.5% II

were added. Glass was coated with a 500 .mu. thick layer of the above compn. and irradiated 90 sec with the light of a 40 W Philips TLAK lamp and 30 sec with a Philips Hg high-pressure lamp to give a coating of Albert-Koenig pendulum hardness 107 sec.

IT 37382-92-6

(crosslinking of, by light, catalysts for)

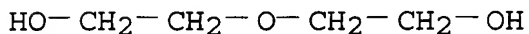
RN 37382-92-6 HCAPLUS

CN 2-Butenedioic acid (2E)-, polymer with 1,3(or 2,3)-bis(2-propenyloxy)propanol, 2,2'-oxybis[ethanol] and 1,2-propanediol (9CI)  
(CA INDEX NAME)

CM 1

CRN 111-46-6

CMF C4 H10 O3

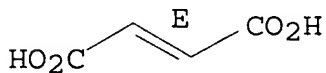


CM 2

CRN 110-17-8

CMF C4 H4 O4

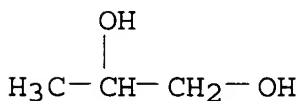
Double bond geometry as shown.



CM 3

CRN 57-55-6

CMF C3 H8 O2



CM 4

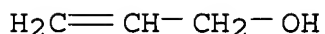
CRN 29595-46-8

CMF C9 H16 O3

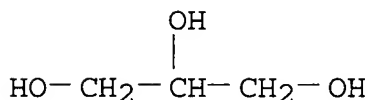
CCI IDS



CM 5

CRN 107-18-6  
CMF C3 H6 O

CM 6

CRN 56-81-5  
CMF C3 H8 O3

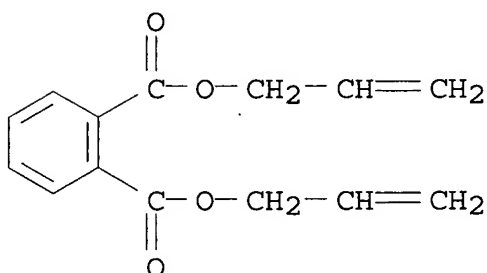
- IC C08G; C09D  
 CC 42-9 (Coatings, Inks, and Related Products)  
 ST unsatd polyester light **crosslinking**; catalyst  
**crosslinking** benzoin ether; coating polyester  
 IT **Crosslinking** catalysts  
 (benzoin alkyl ethers, for polyester coatings by light)  
 IT Coating materials  
 (unsatd. polyesters, **crosslinking** of, by light)  
 IT 574-09-4 6652-28-4 15121-78-5 21217-83-4 26595-39-1  
 28403-86-3 28698-03-5 29110-66-5 40211-01-6  
 (catalysts, for **crosslinking** of unsatd. polyesters by  
 light)  
 IT 37382-92-6 40311-55-5  
 (**crosslinking** of, by light, catalysts for)
- L78 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 1967:482633 Document No. 67:82633 Study of the polymerization and  
 determination of the degree of **crosslinking** of synthetic  
 resins by a study of their dielectric properties. Lansac, Louis  
 Recherche Aerospatiale, No. 117, 39-50 (French) 1967. CODEN:  
 REARAU. ISSN: 0034-1223.
- AB Dielec. const. measurements during the polymn. of diallyl phthalate,  
 in the optional presence of Bz2O2, gave a relative lowering of the  
 dielec. const. that was proportional to the extent of conversion, up  
 to the establishment of contraction. Measurements of dielec.  
 resistivity and dipole moments indicated that the tangential losses  
 due to free electrons possibly caused a polarization counter-emf.  
 due to the **electrolysis** of Bz2O2, with the monomer playing  
 the role of solvent. A plot of frequency vs. dielec. const. for a  
 copolymer prepd. from styrene and a maleic anhydride-succinic  
 anhydride-diethylene glycol polyester showed that variation in the

dielec. const. indicated corresponding variations in the structural state of the resin. The degree of **crosslinking**, as well as structural variations, were related to the dielec. const.

IT 25053-15-0  
 (dielec. properties of, **crosslinking** effect on)  
 RN 25053-15-0 HCAPLUS  
 CN 1,2-Benzenedicarboxylic acid, di-2-propenyl ester, homopolymer (9CI)  
 (CA INDEX NAME)

CM 1

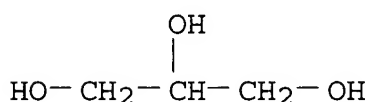
CRN 131-17-9  
 CMF C14 H14 O4



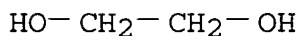
CC 36 (Plastics Manufacture and Processing)  
 ST DIELEC CONST **CROSS-LINKED** POLYMERS; POLYMERS  
**CROSS-LINKED** DIELEC CONST; **CROSS-**  
**LINKED** POLYMERS DIELEC CONST  
 IT Dielectric constant  
 (of diallyl phthalate polymers and polyesters,  
**crosslinking** effect on)  
 IT Electric properties  
 (of polymers, **crosslinking** effect on)  
 IT **Crosslinking**  
 (of polymers, dielec. properties in relation to)  
 IT 26809-87-0  
 (dielec. consts. of styrene-**crosslinked**)  
 IT 25053-15-0  
 (dielec. properties of, **crosslinking** effect on)  
 L78 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2003 ACS on STN  
 1965:85395 Document No. 62:85395 Original Reference No. 62:15259f-g  
 Hydrothermal shrinkage of metabolite-treated aortae.. Milch, R. A.  
 (Johns Hopkins Univ. School of Med., Baltimore, MD). J.  
 Atherosclerosis Res., 5(2), 215-23 (English) 1965.  
 AB Studies include the effects of actual and potential metabolites on  
 the thermal shrinkage of human, bovine, and canine aortae. The  
 aortae, like other collagenous tissues, possesses a distinct and  
 characteristic thermal shrinkage temp. in a no. of solvent systems;  
 compds. which act in vitro as **cross-linking**

agents for native and purified collagen prepns. also significantly increase the shrinkage temp. of the aortic wall strips. The extent of shrinkage temp. elevation in the aorta is qual. identical to that of other collagenous tissues. Compds. which can act in this manner include only certain H<sub>2</sub>O-sol. low molecular wt. aliphatic dialdehydes, and H<sub>2</sub>O-sol. C<sub>1</sub>-C<sub>4</sub> monomeric aliphatic monoaldehydes (which possess a terminal formyl group, an electron-attracting substitution on the .alpha.-carbon atom, an aliphatic chain of not more than 3 or 4 C atoms, and a penultimate free H atom). All other carbohydrate, fat, and protein derivs. examd. fail to stabilize the structure of aortic wall proteins against the adverse effects of heat denaturation. It is suggested that certain aliphatic aldehydes may be responsible for the pathogenesis of some of the properties of the arteriosclerotic aortic wall.

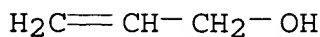
IT 56-81-5, Glycerol  
(arterial hydrothermal shrinkage response to, arteriosclerosis in relation to)  
RN 56-81-5 HCAPLUS  
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT 107-21-1, Ethylene glycol  
(arterial hydrothermal shrinkage response to, arteriosclerosis in relation to)  
RN 107-21-1 HCAPLUS  
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



IT 107-18-6, Allyl alcohol  
(in arterial hydrothermal shrinkage, arteriosclerosis and)  
RN 107-18-6 HCAPLUS  
CN 2-Propen-1-ol (9CI) (CA INDEX NAME)



CC 68 (Pharmacodynamics)  
IT 56-81-5, Glycerol 66-25-1, Hexanal 75-91-2, tert-Butyl hydroperoxide 78-70-6, 1,6-Octadien-3-ol, 3,7-dimethyl- 80-15-9, Hydroperoxide, .alpha.,.alpha.-dimethylbenzyl 98-01-1, 2-Furaldehyde 112-44-7, Undecanal 121-33-5, Vanillin 124-07-2, Octanoic acid 143-07-7, Lauric acid 463-40-1, Linolenic acid 487-89-8, Indole-3-carboxaldehyde 505-57-7, 2-Hexenal 506-30-9,

Eicosanoic acid

(arterial hydrothermal shrinkage response to, arteriosclerosis in relation to)

IT 107-21-1, Ethylene glycol

(arterial hydrothermal shrinkage response to, arteriosclerosis in relation to)

IT 107-18-6, Allyl alcohol 590-86-3, Isovaleraldehyde

(in arterial hydrothermal shrinkage, arteriosclerosis and)